

# Key Result Area 5: Education and Involvement for Stewardship

*"Ultimately, a water ethic is about sharing —  
both with nature and with each other."  
—Sandra Postel, Last Oasis, 1992*

## Desired Result

People of the Basin share a collective understanding and appreciation of the Basin's water resources and a commitment to the restoration, enhancement, and protection of those resources. People value the water resources and understand their personal responsibilities needed to protect the resource.



## What Does Education and Involvement for Stewardship Mean?

The protection and prudent use of the water resources of the Basin depend on each and every resident, each company, and every organization that is involved with activities related to or relying on water. Improving our sense of individual and collective stewardship is critical for achieving the Goals and Objectives of this Plan.

## What is the Importance of Education and Involvement for Stewardship?

The goal of stewardship is to promote good management of land and water resources through increased understanding and awareness. Knowledge and communication of information is a key foundation of stewardship. (Note: This section is based on a description of watershed stewardship programs found in *Rapid Watershed Planning Handbook*, 1998, published by the Center for Watershed Protection, Ellicott City, MD)

A basic premise of water resource stewardship is that we must learn two things—that we live in a watershed and that we understand how to live within the limits of our water resource system. Good water resource education programs establish and enhance such awareness.

Four elements of water resource education are:

1. Water resource awareness: Raising and promoting basic awareness and an understanding of water resources gives people the tools to investigate avenues for change.
2. Personal stewardship: Educating citizens about the individual roles they play in water resource stewardship communicates specific messages about positive and negative behavior, inspiring personal action.
3. Professional training: Educating decision-makers in the private and public sectors about opportunities for the application of water resource protection tools, operations management for pollution prevention, maintenance methods, etc.
4. Engagement: Providing opportunities to actively engage in protection and restoration activities.

An important part of education for stewardship is providing individuals, corporations, government officials, and other stakeholders' opportunities to actively engage in protection, outreach and restoration activities.

## Goals for Education and Involvement for Stewardship

- 5.1 Establish a Basin-wide sense of place.
- 5.2 Increase student and youth awareness of, understanding of, and active participation in water resources issues through the widespread introduction of special curricula and other educational activities in schools throughout the Delaware River Basin. Objectives support Goal 5.1.
- 5.3 Increase private sector awareness of, understanding of, and active participation in water resources issues.
- 5.4 Increase local public officials' awareness of, understanding of, and active participation in water resources issues, needs and management strategies.
- 5.5 Increase opportunities for the sharing of ideas, data, technology, and information among public/private professionals involved in water resources issues.
- 5.6 Increase opportunities for technology transfer and information sharing among water resource professionals.

### **GOAL 5.1: Establish a Basin-wide sense of place.**

*Creating awareness and understanding of the River and its watershed resources to encourage stewardship.*

- Motivate Basin residents, businesses and officials to identify with their watershed address.
- Motivate Basin residents, businesses and officials to take responsibility for their behavior with respect to watershed resources.

### **GOAL 5.2: Increase student and youth awareness of, understanding of, and active participation in water resources issues through the widespread introduction of watershed curricula and related activities.**

We must take several steps to offer age-appropriate activities and curricula about water resources to the next generation of decision-makers.

*Developing curricula on resource issues of the Delaware River Basin.* An integrated, sequential, K-12 science curriculum focused on the Delaware River Basin and emphasizing service in partnership with the community would provide districts and educators with one of the tools they need to expand water resource education in our schools.

*Providing outdoor experiences to engage students in learning about their watershed.* Nothing makes a watershed lesson more fun and interesting than actual participation in an outdoor experience when theory becomes alive and engaging. Students can learn about important water resource educational elements by applying science concepts directly to a local watershed, monitoring their local watersheds through field studies, learning about the impacts of water resources in their communities, and restoring watersheds through community needs-based projects.

*Supporting educators by providing information.* A web-based clearinghouse can provide timely, local aspects on water resource issues useful for curricula and activity development.

### **GOAL 5.3: Increase citizen awareness of, understanding of, and active participation in water resources issues.**

Water resource management requires an active and informed citizen commitment—to participate in local watershed activities and to make “water smart” lifestyle choices.

*Expanding the use of web-based and mass media resources.* Linking existing sites from a central home page is an approach the DRBC already uses in conjunction with other agencies and organizations in the Basin. Enhancing these capabilities and expanding information coverage will facilitate the acceptance and implementation of the Basin Plan. See also Key Result Area 4, Goal 4.2.

*“We are still  
in transition  
from the notion  
of man as  
master of the  
earth to the  
notion of man  
as part of it.”*

*—Wallace  
Stegner*

## Education and Involvement for Stewardship

- Establish a Basin-wide clearinghouse and inventory of watershed projects, programs and contacts as a means of creating a more formal link among non-governmental groups involved in water resource issues.
- Employ mass media coverage of water resource issues to further expand outreach. The mass media will play an important role in educating the public about water resource issues and the importance of conservation and other good practices. Workshops for reporters, editors and other media professionals can play a critical role in ensuring the dissemination and consistency of important messages. Projects that rely on volunteers, such as streamside restoration and planting, need to be advertised well in advance; print and radio media are critical elements.



Schooner AJ Meerwald, New Jersey's tall ship, is operated by the Bayshore Discovery Project as a sailing classroom, promoting ecological and historical awareness of the Delaware Bay region.

**Increasing opportunities for participation.** Expanding the number of projects, activities, and programs in which citizens can participate will increase the exposure of citizens to water resource issues and to the stewardship opportunities available to them. Successful expansion of participation opportunities must include an appreciation for the increasing ethnic diversity of the Basin. Outreach efforts should include minority populations and their interests and concerns about water resources. Messages about lifestyle management must reflect sensitivity toward cultural and religious practices.

**Implementing signage programs.** Providing geographic reference to streams and their drainage systems for the Delaware River Main Stem and all major tributaries that cross interstate and state highways can help convey the message: "It's your/my/our watershed!" Signs telling motorists they are entering a particular watershed are already beginning to dot roadways. This "watershed addressing" technique educates visitors as well as increasing residents' awareness of where they live and travel in relationship to their home watershed and to other watersheds in the Basin.

### **GOAL 5.4: Increase private sector awareness of, understanding of, and active participation in water resources issues.**

Water resource protection and enhancement is a salient business issue. The challenge is to create opportunities to form and firm the partnerships that will produce positive results in water resource issues and sustain the commerce in the Basin.

**Encouraging private businesses to adopt water resource stewardship as a part of their mission.** A long-term corporate commitment to stewardship protects the water resources for future generations in many ways. While adopting water resource-friendly policies at physical plant and office locations, corporations can advise their customers on how to handle or operate their products and inform them of any changes in any regulations that may occur. The private sector can also partner with non-profit and local associations to promote community water resource programs.

**Disseminating information about water resource issues to the commercial community, describing water resource linkages with these entities' products and properties, and suggesting partnership opportunities.** Highlight demonstration projects that showcase innovative and progressive commercial projects. These models may serve as examples for other private sector interests as well as good public relations for water resource management.

**GOAL 5.5: Increase local public officials' awareness of, understanding of, and active participation in water resources issues.**

As has been emphasized throughout this Plan, better local land use decisions are the key to protecting water resources. Public officials at the county and municipal levels make most of these decisions. Outreach to these officials is critical, because state and federal regulations do not and cannot provide a range of protection adequate to address all of the potential impacts of land management decisions on water resources.

**Targeting elected officials and local leaders for education and assistance.** Local leadership is absolutely necessary for local action. Leadership within the decision-making process can be especially effective in forging the critical link between land use and water resource management.

- The watersheds of the 13,539 square-mile Basin include all or portions of 838 towns, townships, boroughs and cities in 42 counties.
- The political and legislative structure of three states and a commonwealth dictate differences in roles, responsibilities and authority among those entities.
- Political cycles determine changes in community management occurring with great frequency— potentially every one to four years. It will require an especially dedicated commitment to provide education and technical resources as each new team of officials and leaders takes its place.

**Providing technical assistance to watershed communities.** To incorporate changes in land use plans and regulations, watershed communities require technical information that is scientifically sound and legally defensible. Broad-based information about the role of planning in water resource management is a critical element of this education and outreach.

- Generally, communities are very hesitant to take action on an issue if it would leave them vulnerable to legal action. Education and assistance programs must be developed to address this. Water resource protection needs to be easy and relatively effortless for successful local adoption and application. Model ordinances can facilitate this.



In November, 2003 the Christina Basin Clean Water Partnership received an EPA watershed initiative grant to improve water quality, education and outreach. DRBC Executive Director Carol R. Collier and US EPA Region III Administrator Donald S. Welsh are pictured.

**Fostering partnership and communication among communities within each watershed.** It is important for each jurisdiction to understand its role within a watershed. (See Key Result Area 3 for a discussion of “watershed community.”) Watershed communities should be encouraged to share information, collaborate on similar issues and agree on desired water resource outcomes. Non-profit organizations such as local watershed alliances can help to facilitate this collaboration.

**Addressing the upstream and downstream roles of the community as part of outreach to public officials.** Programs to educate and encourage stewardship among public officials should help them to understand where their community fits into the larger picture of the watershed, and where their watershed fits into the Basin.

- Most officials have a good understanding of the political landscape in their county and state. The ‘waterscape’ needs to become just as salient if we are to accomplish improved water resource results.

**Making funding and other resources available for watershed communities to prepare and implement water resource-oriented plans and ordinances.** Making resources available with a minimum of fuss and hassle can make a big difference at the local level. A dedicated fund to improve the water IQ of local decision-makers would be especially valuable and practical.